

That which is claimed is:

1. A method of facilitating vascular growth in a subject in need of such treatment, comprising:

5 inhibiting EMAP II activity in said subject by an amount effective to stimulate vascular growth in said subject.

10 2. A method according to claim 1, wherein said inhibiting step is carried out by administering a compound that specifically binds to EMAP II to said subject in an amount effective to stimulate vascular growth in said subject.

3. A method according to claim 1, wherein said inhibiting step is carried out by downregulating EMAP II expression in said subject by an amount effective to stimulate vascular growth in said subject.

15 4. A method according to claim 1, wherein said inhibiting step is carried out by administering an EMAP II receptor antagonist to said subject in an amount effective to stimulate vascular growth in said subject.

20 5. A method according to claim 1, wherein said subject is at risk for ischemic reperfusion injury to the lungs, and said inhibiting step is carried out to inhibit ischemic reperfusion injury in said subject.

25 6. A method according to claim 1, wherein said subject is a newborn subject, and said inhibiting step is carried out to inhibit bronchopulmonary dysplasia in said subject.

7. A method of screening for compounds useful for facilitating vascular growth in a subject in need thereof, comprising:
contacting a test compound to a probe molecule, said probe molecule selected
30 from the group consisting of EMAP II and fragments thereof; and then
detecting the presence or absence of binding of said test compound to said probe molecule, the presence of binding indicating said compound may be useful for facilitating vascular growth in a subject.

8. A method according to claim 7, wherein said test compound is a member of a combinatorial library.

5 9. A method according to claim 7, wherein said test compound is a protein or peptide.

10. A method of screening for compounds useful for facilitating vascular growth in a subject, comprising:

10 contacting a test compound to probe molecule, said probe molecule selected from the group consisting of DNA encoding EMAP II, RNA encoding EMAP II, and fragments thereof; and then

detecting the presence or absence of binding of said test compound to said probe molecule, the presence of binding indicating said compound may be useful for facilitating vascular growth in a subject.

15 11. A method according to claim 10, wherein said test compound is a member of a combinatorial library.

20 12. A method according to claim 10, wherein said test compound is an oligonucleotide.

13. A method of screening for compounds useful for facilitating vascular growth in a subject, comprising:

25 determining *in vitro* whether a test compound inhibits expression of EMAP II; the inhibition of expression of EMAP II indicating said compound may be useful for facilitating vascular growth in a subject.

30 14. A method according to claim 13, wherein said determining step is carried out in a cell.

15. A method according to claim 13, wherein said determining step comprises determining whether said compound inhibits transcription of EMAP II.

16. A method according to claim 13, wherein said determining step comprises determining whether said compound inhibits translation of EMAP II.

5 17. A pharmaceutical formulation comprising:
an active compound selected from the group consisting of compounds that specifically bind to EMAP II, compounds that inhibit the expression of EMAP II, and EMAP II receptor antagonists; and
a pharmaceutically acceptable carrier;

10 18. A pharmaceutical formulation according to claim 17, wherein said pharmaceutically acceptable carrier is sterile saline solution.

15 19. A pharmaceutical formulation according to claim 17, wherein said active compound is included in said pharmaceutically acceptable carrier solution in an amount between about .001 and 50 percent by weight.

20. A pharmaceutical formulation according to claim 17, wherein said active compound is an antibody that specifically binds to EMAP II.